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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/473,871	12/28/1999	Marc W, Kauffman	2253	1564

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P O BOX 556
SPRINGTOWN, PA 18081

EXAMINER

SALTARELLI, DOMINIC D

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 04/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/473,871

Applicant(s)

KAUFFMAN ET AL.

Examiner

Dominic D Saltarelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,8-12,16 and 20-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 1-3,8-12,16 and 20-22 is/are allowed.
6) ☒ Claim(s) 23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

1. Indicated allowable claim 23 in the previous office action has been withdrawn in view of newly cited art Rocci and Chen, discussed below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rocci et al. (4,810,898) [Rocci] in view of Chen (6,570,913).

Regarding claim 23, Rocci discloses a cable network environment (fig. 2) having a head-end (fig. 2, headend 102), where the method for determining channel usage at a location remote from the head end (performed by SM 106b-e in fig. 1, col. 5, lines 41-47 and col. 5 line 66 – col. 6 line 11) comprises the steps of:

Estimating the spectrum of a signal (col. 5, lines 41-52 and col. 5 line 66 – col. 6 line 1);

Correlating the spectrum with a set of stored spectra (col. 5, lines 53-65 and col. 6, lines 1-11)

Determining the presence of signals as a result of the correlation (col. 5, lines 57-65)

Rocci fails to disclose the cable network environment includes a subscriber location with return path communications being accomplished in a return frequency band, and determining a frequency band in use by an in-home device from result of the correlation.

In an analogous art, Chen teaches a cable network environment (fig. 1 and col. 9, lines 41-47) that includes a subscriber location (fig. 1, cable modem 120 and PC 122) with return path communications being accomplished in a return frequency band (upstream channel, col. 9, lines 18-40), wherein the frequency bands in use by in-home devices (in-use set, col. 13, lines 34-40) is determined, allowing the system to discriminate between ingress noise (noise set, col. 13, lines 39-41) and genuine signals when analyzing a return path frequency band (fig. 7, steps 700-712, col. 13, lines 28-45).

It would have been obvious at the time to a person of ordinary skill in the art to modify the cable network environment disclosed by Rocci to include a subscriber location with return path communications being accomplished in a return frequency band, and determining a frequency band in use by an in-home device from result of the correlation, as taught by Chen. The reason for doing so is so that the difference between the power from ingress noise in a cable television network environment the power from upstream communications from a subscriber can be identified and the two not confused.

Allowable Subject Matter

4. Claims 1-3, 8-12, 16, and 20-22 are allowed. Each claim includes the limitations of acquiring of a power spectrum density measurement of a return path signal for locating specific frequency sub-bands that are in use by correlating the PSD measured with a plurality of stored PSDs, wherein the frequency sub-bands identified as in-use are those which exhibit peak correlation with the plurality of stored PSDs, so that the frequency sub-bands thus determined to be in use are specifically monitored for the purpose of mitigating return path ingress or isolating the signal if the power is too high.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schwartzman et al. (6,385,773) disclose measuring the power spectrum of a return band to measure the power level within each band (col. 10) and measures the ingress noise in each during periods of no data transmission (col. 11 and 12)

Unger et al. (6,230,326) disclose analyzing the power spectrum of a return band to locate frequencies with low ingress (col. 3 and 4)

Wang et al. (5,428,819) disclose detecting active channels in an RF environment (col. 9)

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6. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

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on _____.
(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Certificate of Transmission

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(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic D Saltarelli whose telephone number is (703) 305-8660. The examiner can normally be reached on M-F 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the primary examiner, Christopher Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dominic Saltarelli
Patent Examiner
Art Unit 2611

DS


CHRIS GRANT
PRIMARY EXAMINER